STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. *Name of proposed project, if applicable:*

   Timber Sale Name: WEST NINE MILE *Agreement #:* 76352

2. *Name of applicant:* Department of Natural Resources

3. *Address and phone number of applicant and contact person:*

   Bob McKellar
   Department of Natural Resources
   P.O. Box 190
   Colville, WA 99114-0190 (509) 684-7474

4. *Date checklist prepared:* September 13, 2004

5. *Agency requesting checklist*: Department of Natural Resources

6. *Proposed timing or schedule (including phasing, if applicable):*

   a. *Auction Date:* February 22, 2005
   b. *Planned contract end date (but may be extended):* August 31, 2007
   c. *Phasing:* None

7. *Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.*

   Timber Sale

   a. *Site preparation:* Normal ground disturbance will occur with ground based yarding operations. Landing slash will be piled and burned.

   b. *Regeneration Method:* All units will be hand planted to western larch - 300 trees per acre following completion of the project.

   c. *Vegetation Management:* Road cut banks and fill slopes and landing locations will be grass seeded to minimize the spread of noxious weeds. The District will continue its aggressive roadside noxious weeds program, combined with road closures to minimize noxious weed introduction and spread.

   d. *Thinning:* None planned

   Roads: Road maintenance assessments will be conducted annually and may include periodic ditch and culvert cleanout, and road grading as needed to minimize erosion and failures, see A.11.

Rock Pits and/or Sale: No rock pits and/or rock sales are needed for this proposal, see A.11.

Other: Informal firewood cutting may occur following the completion of harvest activities.

8. *List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.*

☐*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☒*Landscape plan: Loomis State Forest Landscape Management Plan dated June 1996*
☐*Watershed analysis:*
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan: by Washington Department of Natural Resources Engineering dated 9/30/2004*
☒*Wildlife report: Washington Department. of Fish and Wildlife, Biologist, regarding: Field survey for goshawks*
☐*Geotechnical report:*
☒*Other specialist report(s): Washington Department. of Natural Resources, Forest Practices, regarding: Field survey for water type update.*
☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐*Rock pit plan:*
☒*Other:*

- GIS generated WAU maps showing: Soil type, mass wasting potential, erosion potential, soil stability, habitat type, and hydrologic maturity of the Chopaka, and North Fork (NF) Toats Coulee WAUs.
- Department of Natural Resources (DNR) TRAX
- Washington Department of Fish and Wildlife (WDFW) Heritage Database
- DNR Forest Resource Plan
- DNR Forest Resource Plan, Environmental Impact Statement, July 1992
- DNR Smoke Management Plan, issued April 1993
- State Soil Survey
- Loomis State Forest Quality Study, Benthic Macro-Invertebrate Assessment, 5-Year Summary, August 1, 2001
- Loomis State Forest Water Quality Study, Stream Channel Condition Assessment, 5-Year Summary, August 1, 2001

9. *Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.*

There are no known governmental approvals pending that would directly affect this sale.

10. *List any government approvals or permits that will be needed for your proposal, if known.*

☐*HPA* ☒*Burning permit* ☐*Shoreline permit* ☐*Incidental take permit* ☒*FPA #* _____ ☐*Other:*

11. *Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)*

a. Complete proposal description:

The West Nine Mile proposal is located in NF Toats Coulee WAU and the Chopaka WAU. This proposal includes the commercial harvest using ground-based equipment (on slopes mostly under 35%) within five harvest units. Approximately 4.404 MMbf of timber volume will be harvested from a total of 308 net harvest acres (322 gross acres – includes 14 acres for existing roads and three acres for the leave tree area in Unit 5). All five units are proposed to be evenaged harvested leaving approximately 13 to 15 of the largest available trees per acre. Units will be reforested by hand planting western larch resulting in approximately 300 trees per acre including residual retention plus natural regeneration as soon as possible following harvest operations.

The transportation system used throughout this proposal will be upgraded to meet and/or exceed current Forest and Fish Standards. Two additional culverts are proposed to be installed within the existing road system to better direct surface runoff to the forest floor. Approximately 318 feet of new construction is proposed to access Unit 5 and will include installing these two culverts. A gate has been installed on the 4400 road restricting vehicle traffic helping to reduce erosion and enhance wildlife habitat. See the following road activity summary for access information.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Units within this proposal are forested with a mixture of 80-120 year old Douglas fir, Engelmann spruce, subalpine fir, lodgepole pine and scattered western larch. Unit 4 also contains aspen along its northern boundary. Excluding large diameter remnants, average stand diameters range from 10-20 inches. The objectives of the harvest will include but will not be limited to: conduct an evenaged harvest generating revenue for the common school trust, reducing Douglas fir, Engelmann spruce and mountain pine beetle host trees, increasing the more insect and disease resistant western larch component of the stand, retaining wildlife and green recruitment trees for the purpose of wildlife cover and habitat, increasing the overall health and vigor of the stands for future production, and the diversification of age classes across ownerships to minimize risk of catastrophic fire.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		318	1/2	0
Reconstruction		2542		0
Abandonment		0		0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	2			

12. *Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. *Legal description:*

Sections 1 and 12, all in Township 39 North, Range 24 East, W.M.; Sections 35 and 36, all in Township 40 North, Range 24 East, W.M.; Section 31, Township 40 North, Range 25 East, W.M.

b. Distance and direction from nearest town (include road names):

This sale is located approximately twelve miles northwest of Loomis, Washington.

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU Name	WAU Acres	Proposal Acres
TOATS COULEE, NF	38669	232
CHOPAKA	14718	90

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

The West Nine Mile proposal is located in two WAUs, Chopaka (approximately 28% of the sale area or 90 acres) and Toats Coulee North Fork, NF (approximately 72% of the sale area or 232 acres).

Chopaka WAU

Chopaka Creek flows into Sinlahekin Creek then into the Similkameen River. Approximately 28% of the West Nine Mile proposal is in the Chopaka WAU. This 28% is located in Units 3 and 4, comprising 90 total harvest acres for these two units (69 acres in Unit 3 and 21 acres in Unit 4). This proposal will affect less than 1% of the entire WAU. The two harvest units lie along the northwest boundary of the WAU and border the Toats Coulee, NF WAU.

State ownership comprises approximately 54% (7877 acres) of the WAU. Non-DNR ownership is approximately 46% (6841 acres) of the WAU. Since November 1994, DNR activities in the Loomis Forest have been in accordance to the Loomis Landscape Plan and forest practice rules. The Loomis Landscape Plan recommended harvest strategies and resource protection measures that have been incorporated in all sales and transportation system design and layout.

Hydrologic maturity levels were calculated in 1998 by a DNR hydrologist for the Loomis State Forest in all the major watershed analysis units. This calculation used all harvests for each WAU from 1980 through 1998. Following harvest, stands begin to regenerate either naturally or by artificial means. As the stands grow, they slowly return to a hydrological mature status. In calculating the maturity levels, this factor was taken into consideration and was adjusted for through the use of graphs specifically designed for different vegetation zones within the WAU. The level of hydrologic maturity for the Chopaka WAU in 1998 was 87%. The minimum acceptable level for hydrologic maturity is 60%. The Chopaka WAU comes in well above the minimum planned level of 60%. Three timber sales have been sold and/or harvested since the calculation in 1998, which include the Rattlesnake, the Chopaka and the Quartz Mountain Timber Sales totaling approximately 538 acres with .71 miles of new road construction and 1.45 miles of road reconstruction. There is no known past, present or foreseeable action on private land in this WAU. These past and proposed harvests are expected to reduce the hydrologic maturity level of the WAU, but only minimally. Considering all past, present, and reasonably foreseeable management in this WAU, the hydrologic maturity level is expected to remain above the 60% minimum threshold level. See B. 3. a. 12-14.

Toats Coulee, NF WAU

The North Fork Toats Coulee Creek flows into Sinlahekin Creek then into the Similkameen River. Approximately 72% of the West Nine Mile proposal is in the Toats Coulee, NF WAU. This 72% is located in Units 1, 2 and 5 comprising 232 total harvest acres for these three units (95 acres in Unit 1, 66 acres in Unit 2, and 71 acres in Unit 5). These three units lie in the eastern portion of the WAU with Unit 2 just along the boundary between the Chopaka WAU and the Toats Coulee NF WAU.

State ownership comprises approximately 64% of the WAU. Non-DNR ownership is approximately 36% of the WAU. Since November 1994, DNR activities in the Loomis Forest have been in accordance to the Loomis Landscape Plan and forest practice rules. The Loomis Landscape Plan recommended harvest strategies and resource protection measures that have been incorporated in all sales and transportation system design and layout.

Approximately 34% of the WAU (53% of state ownership within the WAU) is within the Natural Resource Conservation Area and Natural Preserve Area in Township 40 North, Range 24 East, W.M.

Hydrologic maturity levels were calculated in 1998 by a DNR hydrologist for the Loomis State Forest in all the major watershed analysis units. This calculation used all harvests for each WAU from 1980 through 1998. Following harvest, stands begin to regenerate either naturally or by artificial means. As the stands grow, they slowly return to a hydrological mature status. In calculating the maturity levels, this factor was taken into consideration and was adjusted for through the use of graphs specifically designed for different vegetation zones within the WAU. The level of hydrologic maturity for the Toats Coulee, NF WAU in 1998 was 87%. The minimum acceptable level for hydrologic maturity is 60%. The Toats Coulee, NF WAU comes in well above the minimum planned level of 60%. Three timber sales have been sold and/or harvested since the calculation in 1998, which include the Nine Lives, the Easy Access, and the Juniper Timber Sales totaling 801 acres. These past and proposed harvests are expected to reduce the hydrologic maturity level of the WAU, but only minimally. Considering all past, present, and reasonably foreseeable management in this WAU, the hydrologic maturity level is expected to remain well above the 60% minimum threshold. See B. 3. a. 12-14.

Existing roads will be utilized where possible and other existing road beds will be reconstructed to improve drainage and minimize surface erosion of running surfaces by out-sloping and installing drivable dips. Other existing roads being utilized, such as mainline haul roads, currently meet Forest Practice standards with our road maintenance and abandonment process being implemented. Proper road reconstruction, coordinated skidding patterns and landing locations, effective contract administration compliance and normal road maintenance all should minimize the erosion potential. Roads will be reconstructed and maintained to disperse surface flows and direct it to safe disposal sites, allowing water to filter into the forest floor. Water bars, out-sloping, monitoring, and grass seeding will be utilized at the completion of this project. Road construction, reconstruction and/or log hauling will not take place from March 15 through July 31 within Units 3 and 5 due to spring break-up and potential lynx denning requirements. All other units, road construction, reconstruction and/or log hauling will not be permitted from March 15 to April 30, due to spring break-up, unless approved by the contract administrator.

Ecotones have been identified within the sale area. These ecotones provide valuable natural habitat for wildlife. As such, unit boundaries were strategically placed to minimize disturbance of those areas.

Leave trees will be randomly distributed throughout the interior of the units. Approximately 13 to 15 trees per acre are marked to be left as legacy and reserve trees. Leave trees include green trees and dead snags. Snags marked will be left provided they can safely be operated around. Legacy tree and Forest Practice requirements will be adhered to. Harvest units will be planted with western larch to increase the predominance of this species on the site. Grass seeding along roads on disturbed soils will help to inhibit the spread of noxious weeds.

Dust abatement will be performed as needed on the 4000 and 2000 roads from June 1 to November 1 while hauling to ensure air quality, protection of the capital improvements, to limit damage to the running surface and subsequent erosion potential.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. *General description of the site (check one):*

☐*Flat,* ☐*Rolling,* ☐*Hilly,* ☐*Steep Slopes,* ☒*Mountainous,* ☐*Other:*

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone)

The West Nine Mile proposal is located in two WAUs: Chopaka and North Fork Toats Coulee.

Both WAUs are located on the eastern slopes of the North Cascades. The primary species consist of ponderosa pine/Douglas fir in the lower elevations, Douglas fir/western larch /Engelmann spruce in the mid elevations, and lodgepole pine/subalpine fir/Engelmann spruce in the higher elevations. The main tributary of the Chopaka WAU is Chopaka Creek. The main tributary of the NF Toats Coulee WAU is the North Fork Toats Coulee Creek. Both streams flow from west to east. Precipitation ranges from 12-18 inches in the lower elevation to approximately 35+ inches in the higher elevations. The terrain influences the climate considerably. These WAUs include Douglas fir and subalpine fir vegetation zones.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s)

.

The proposed activities are located in the mid to upper elevations of the WAUs ranging from 4,700 to 6,000 feet. Primary species to be harvested is Douglas fir and Engelmann spruce. Units 1, 3 and 5 have easterly aspects, Unit 2 a westerly aspect, and Unit 4 a southerly aspect. Most of the sale is located on slopes under 35%. Less than 1% of the sale area is on slopes of 40% to 50%. All Units are in the subalpine fir zone except Unit 4, which is in the Douglas fir vegetation zone.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope included in the sale area is approximately 50%.

c. *What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

After examining the table below, it can be seen that a majority of the proposal lies on soils that have a medium to high potential of erosion on slopes averaging less than 30%, except for Survey # 1239 (soil found on Units 2 and 3) has 50–90%. In actuality the steepest slope on the two applicable units is less than 50% with approximately 95% less than 35% slope. Although soils within the area may be prone to erosion, great care was taken when laying out road and harvest unit boundary locations to avoid the possibility of sediment delivery to streams.

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
0135	Gravelly Sandy Loam	8-35	73	Low	Medium
1239	Stony F. Sandy Loam	50-90	71	High	High
1269	F. Sandy Loam	8-35	74	Low	Medium
1255	Cryochrepts-Cryoboralfs-Complex	0-30	51	Insignificant	Medium
4637	F. Sandy Loam	30-55	27	Medium	High
5729	Gravelly F. Sandy Loam	25-55	13	Low	Mediume
6693	Stony Sandy Loam	0-20	12	Insignificant	Low
4293	Lithic Haploxerolls-Rock Outcrop Complex	15-45	4	Low	Medium

d. *Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.*

1) *Surface indications:*

There are no apparent surface indications in the vicinity of the sale area to imply significant instability of the surface strata.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

In the mid 1980s within the NF Toats Coulee WAU, Nine Mile Creek had a slope failure that originated on a stream adjacent slope and then entered the stream channel. There is evidence of other small local failures that have occurred naturally on stream banks of other streams throughout the NF Toats Coulee WAU. These failures usually occur on steep banks and are usually associated with natural stream channel morphology.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:

Small local events can be found along cut banks of roads with both WAUs. These consist primarily of sloughing materials into ditches and occasionally onto road surfaces. Since the adoption of the Loomis Landscape Plan, roads within the WAUs have been identified as having potential for resource damage either to soil or water and mitigation activities have occurred where needed. With proper road design and construction, timber sale unit layout and design, there have been no slope failures to this date relating to timber harvest activities.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☐*No* ☒*Yes, describe similarities between the conditions and activities on these sites:*

Existing road cut slopes and some of the soil types listed in the table above are similar to where other isolated failures have occurred.

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

Sale boundaries were located to avoid streams (a no harvest RMZ between Units 3 and 4 has been incorporated to avoid a Type 4 water, a no harvest corridor along West Nine Mile Creek below Unit 1, and a no harvest exclusion area within Unit 5 to protect an existing wet area) and where possible to employ relatively flat topography within harvest units to allow surface water to slow and disperse onto the undisturbed forest floor for filtering and absorption.

Existing roads will be utilized and some roads reconstructed to allow for proper drainage and minimize surface erosion of running surfaces. Routine maintenance, out sloping and installing drivable dips will disperse surface flows allowing water to filter to the vegetated forest floor. Other existing roads being utilized such as mainline haul roads, currently meet protection measure standards.

Proper road construction/reconstruction, coordinated skidding patterns and landing locations, effective contract administration and normal road maintenance all should minimize the erosion potential. Water bars, out sloping, monitoring, and grass seeding will be utilized. Road construction/reconstruction will not take place from March 15 through April 30, unless approved by the contract administrator. Log hauling will not be permitted from March 15 to April 30, unless approved by the contract administrator.

e. *Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.*

This project includes rocking of road running surfaces and approximately 165 feet of rock fill on that portion of the 4425 road being constructed.

Approx. acreage new roads: <1
Approx. acreage new landings: 4
Fill source: Rock source located approximately one mile up the Chopaka Grade Road and an existing rock pile at the 4000 and 2000 road junction.

f. *Could erosion occur as a result of clearing, construction, or use? If so, generally describe.*

There is potential for some minimal erosion to occur as a result of road construction and/or harvest activities associated with this proposal. Potential of erodable material reaching typed water is expected to be minimal with this proposal. Protection measures have been identified where appropriate to minimize or eliminate the risk of erosion. See B.1.d.5., above.

g. *About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Permanent graveled and native soil roads will result in approximately 2% of the proposal being covered. No permanent impervious surfaces are planned with this proposal.

h. *Propose measures to reduce or control erosion, or other impacts to the earth, if any: (Include protection measures for minimizing compaction or rutting.)*

Unit boundaries were specifically located away from Nine Mile Creek and other potentially wet areas. Existing roads will be utilized. Timing restrictions are being implemented as part of this proposal. See B.1.d.5. above.

Some roads used for this harvest proposal will be closed resulting in a net reduction of open road density. Erosion will be minimized as these roads will be revegetated by grass seeding plus other protection measures that include planting trees, installing non-drivable water bars, removing culverts and fills and installing tank traps to prevent further vehicle traffic.

Coordinated skid trail use and landing locations through contract provisions coupled with effective contract administration, and routhine road maintenance practices should minimize erosion, rutting, and compaction factors. Steeper skid trails will be water barred and grass seeded or have slash placed in them to prevent surface erosion. Water bars, rolling dips, out sloping and ditches will be used to direct water off roads and onto the forest floor. Hauling on all roads will be suspended during extreme wet weather conditions and during spring breakup when surface rutting could occur. Ditch lines and landings will be revegetated.

2. Air

a. *What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.*

This proposed timber harvest will involve vehicle emissions from logging, yarding, and hauling equipment; dust from road construction and logging activities; and dust from log hauling activities. Such emissions should result in no significant impact to air quality. If broadcast burning/slash burning occurs, it will adhere to the state's Smoke Management Program.

b. *Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.*

There are no known off site sources of emissions that may affect this proposal.

c. *Proposed measures to reduce or control emissions or other impacts to air, if any:*

Purchaser will be directed to abate dust on the 4000 and 2000 roads from June 1 to November 1 while hauling as determined by the contract administrator.

3. Water

a. *Surface:*

1) *Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map and forest practice base maps.)*

There are no surface water bodies on the site or in the immediate vicinity of the proposal. There are three crossings over typed water near this proposal on the haul route. The existing 4400 road crosses Nine Mile Creek, while providing access to Units 1 and 5. Road 4410 crosses a Type 5 stream while providing access to Unit 5. The 2970 road crosses a Type 4 while providing access to Unit 4. A 24-inch culvert at this crossing was replaced in 2003 and both inlet and outlet areas were rocked to help inhibit erosion. Nine Mile Creek is currently marked as a Type 4 stream on the hydro layer near the proposal, however it meets the physical characteristics of a Type 3 stream and will be treated as a Type 3 stream with this proposal. Both streams have existing culverts. The Nine Mile Creek culvert is 36 inches. The Type 5 culvert on the 4410 is 18 inches. Additional protection measures will include installing rock armoring around the culvert inlets and outlets and road maintenance such as grading, grass seeding, and contract administration to limit erosion entering these water bodies.

There are an additional four Type 5 streams the 2000 road crosses over that have been further protected in 2003 by installing cross drain culverts approximately 50 feet up-grade from each creek to route surface and ditch runoff onto the forest floor.

The streams relative to the 4400 and 4410 roads flow into North Fork Toats Coulee Creek. The streams relative to the 2000 and 2970 roads flow into Chopaka Creek.

a) Downstream water bodies:

North Fork Toats Coulee Creek is located approximately three miles south of the proposal. It flows southeast approximately six miles to the confluence with the Sinlahekin Creek. Chopaka Creek is located approximately two miles southeast from the proposal and flows southeast approximately six miles to the confluence with the Sinlahekin Creek.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Nine Mile Creek	Type 4	1	100
Off 4410 road (unnamed)	Type 5	1	No RMZ required
Off 2970 road (unnamed)	Type 4	1	50
Wet area within Unit 5	None	1	50

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

Nine Mile Creek was reviewed on the ground and it meets the physical criteria of a Type 3 water. This stream and the Type 5 are not in the immediate vicinity of the harvest, but are on the haul route. Clean

fractured rock will be placed around inlets and outlets and approaching roads will be maintained and grass seeded to limit potential erosion from occurring and entering streams. The Type 4 on the 2970 was replaced in 2003. Ditching, other culvert installations, rock placement around inlets and outlets, and road surface shaping and grass seeding that was done will be maintained during and upon completion of the proposal. This stream is on the haul and is also bordered by Units 3 and 4 with approximately 170 feet of undisturbed timberland on each side of stream. See timber sale maps. The wet area within Unit 5 is also protected by a 50-foot buffer to either side and operations will not be allowed within this buffer.

2) *Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.*
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*

Description (include culverts): See B.3.a.1. and B.3.c.

3) *Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.*

A small amount of fill (required to install culverts) will be used and is available on each site.

4) *Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

No surface water withdrawals or diversions will be required.

5) *Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.*
☒*No* ☐*Yes, describe location:*

This proposal does not lie within a 100-year floodplain.

6) *Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.*
☒*No* ☐*Yes, type and volume:*

This proposal does not involve any discharges of waste materials to surface waters.

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Yes, the soils contained within this proposal area have 70% rated as insignificant to low, 8% rated as medium, and 22% rated as high potential for mass wasting. Additionally, 3% of soils are rated as low, 67% are rated as medium, and 30% of the soils are rated as having high erosion potential (see B.1.c). Harvest boundaries and units as a whole were located to minimize the potential for erosion and mass wasting to impact typed waters. Undisturbed areas between units and surface water were incorporated to reduce the potential for surface erosion or mass wasting to typed waters as well.

8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☒*No* ☐*Yes, describe changes and possible causes:*

No, however, there is a history of periodic high water events that flush streams, which seem to be part of natural processes. There are isolated occurrences of livestock use, which may also cause local impacts to individual streams. However, there is no evidence of change in the channels throughout the WAUs.

9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☒*No* ☐*Yes, explain:*

There is little or no adverse impact to stream flow or water quality anticipated as a result of activities associated with this proposal. Sale unit design, skidding patterns, distance from water, operating seasons, and prescriptions should minimize any potential for adverse impacts. See B.1.d.5., and B.1.h., for more information.

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*

Road miles per square mile in the Chopaka WAU are 2.5 miles per section. DNR ownership in the WAU contains approximately 3.0 miles of road per section. Road miles per square mile in the North Fork Toats Coulee are 1.9 miles per section. DNR ownership in the WAU contains approximately 2.6 miles of road per section.

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

No, the proposal is located in the snow dominant and highlands zone.

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

The proposal is not within the ROS zone.

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*

There is evidence of past high water events within the Chopaka and North Fork Toats Coulee WAUs. These events have occurred as natural events in the history and evolution of the WAU, reference B.3.a.8.9.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

This proposal is not expected to contribute to peak flow events within the Chopaka and North Fork Toats Coulee WAUs.

This proposal is not within the Rain on Snow zone.

Several roads will be closed in this proposal reducing the open road density and surface erosion. A locked gate restricting access to Unit 1 and Unit 5 will also limit road use and encourage the road surface to revegitate.

As additional timber is harvested it can be assumed that hydrologic maturity levels in the WAUs will be reduced to lower levels, but will remain well above the 60% threshold stated above. In turn, as time progresses areas that were harvested in the past will begin to return to a hydrologically mature state. Hydrologic maturity levels will continue to be monitored by DNR hydrologist and local staff.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☐*No* ☒*Yes, possible impacts:*

Whitestone reclamation diversion station on the Toats Coulee Creek is located approximately six miles downstream from this proposal. The diversion station is not a source of domestic water, but it is a source of irrigation water. No significant changes to surface water amounts are expected as a result of this proposal. All activities associated with this proposal have been designed to minimize potential increase to water quantity or impacts to water quality.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

Harvest boundaries were located away from typed waters for additional protective measures. Additional culverts will be installed on new construction, road 4425. Proper road maintenance and cross drains will ensure that water accumulating on running surfaces will be dispersed onto the undisturbed forest floor helping to reduce erosion. A gate has been installed on the 4400 road that will limit road use after harvest is completed to reduce road surface rutting and to encourage vegetation to grow freely. Harvest areas will be replanted, and roads, landings and skid trails will be grass seeded as necessary to ensure rapid re-establishment of vegetation back onto the disturbed landscape.

b. *Ground Water:*

1) *Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.*

No ground water will be withdrawn or discharged to ground water as a result of this proposal.

2) *Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.*

No waste material will be discharged into the ground from septic tanks or other sources mentioned above.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

None are anticipated as described in question B.3.a.15., above.

a) Note protection measures, if any.

Harvest boundaries are located away from typed waters. Proper road maintenance and cross drainage is expected to ensure water accumulating on running surfaces will be dispersed onto the undisturbed forest floor. Harvest areas will be replanted to provide for rapid re-establishment of conifer species back onto the landscape.

c. *Water Runoff (including storm water):*

1) *Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.*

Snowmelt and rain are the main sources of water runoff. Runoff that is intercepted by road surfaces and ditches will be diverted onto the undisturbed forest floor where possible. No typed waters are located within the sale units.

2) *Could waste materials enter ground or surface waters? If so, generally describe.*

a) Note protection measures, if any.

While no waste material is anticipated (see 3.b.2) and therefore not expected to enter ground or surface waters, many protection measures will be implemented as a result of this proposal.

c. *Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:*

See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a. See B.1.h in addition to the sections listed above.

4. Plants

a. Check or circle types of vegetation found on the site:

☒ *deciduous tree:* ☐ *alder,* ☐ *maple,* ☒ *aspen,* ☐ *cottonwood,* ☒ *western larch,* ☐ *birch,* ☐ *other:*
☒ *evergreen tree:* ☒ *Douglas fir,* ☐ *grand fir,* ☐ *Pacific silver fir,* ☒ *ponderosa pine,* ☒ *lodgepole pine,* ☐ *western hemlock,* ☐ *mountain hemlock,* ☒ *Englemann spruce,* ☐ *Sitka spruce,* ☐ *red cedar,* ☐ *yellow cedar,* ☒ *other: sub-alpine fir.*
☒ *shrubs:* ☒ *huckleberry,* ☐ *salmonberry,* ☐ *salal,* ☐ *other:*
☒ *grass*
☐ *pasture*
☐ *crop or grain*
☐ *wet soil plants:* ☐ *cattail,* ☐ *buttercup,* ☐ *bullrush,* ☐ *skunk cabbage,* ☐ *devil's club,* ☐ *other:*
☐ *water plants:* ☐ *water lily,* ☐ *eelgrass,* ☐ *milfoil,* ☐ *other:*
☐ *other types of vegetation:*
☐ *plant communities of concern:*

b. *What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")

Unit 1 is bounded by a mature Douglas fir (80+ years) multi-layered canopy stand to the south; a mature Douglas fir (80+ years) multi-layered stand yet patchy open southerly facing stand to the west; a harvested lodgepole pine (15+ years) single layered canopy stand to the east between the unit and the stream corridor of West Nine Mile Creek; and a harvested Douglas fir and Engelmann spruce stand containing 20-25 mature trees per acre and 100+ trees per acre (10+ years) of understory regeneration to the north.

Unit 2 is bounded by a mature Douglas fir (80+ years) multi-layered canopy stand to the east and northeast; a mature Douglas fir and lodgepole pine stand with patchy open areas and with a multi-layered canopy to the south; a harvested lodgepole pine (8+ years) stand composed of a single layered lodgepole pine and western larch canopy of regeneration at 100+ trees per acre to the northwest and southwest; and a mature lodgepole pine and Douglas fir (80+ years) multi-layered canopy stand along the West Nine Mile Creek corridor to the west.

Unit 3 is bounded by a mature Douglas fir and Engelmann spruce (80+ years) single layered canopy stand to the east; a harvested Douglas fir and lodgepole pine stand composed of 15-20 mature trees per acre and 100+ trees per acre (10+ years) regeneration layer to the southeast; a mature Douglas fir (80+ years) multi-layered canopy stand to the southwest in the corridor between Units 2 and 3; a harvested Douglas fir and lodgepole pine stand with 8+ mature trees per acre and 180+ (8+ years) trees per acre of western larch, Douglas fir, and lodgepole pine regeneration to the west; a mature Douglas fir and Engelmann spruce (80+ years) multi-layered canopy stand to the northwest; and a mature Douglas fir and Engelmann spruce (80+ years) single layered canopy stand to the north/northeast in the corridor separating Unit 3 from 4.

Unit 4 is bounded by a mature Douglas fir (80+ years) multi-layered canopy stand to the southeast; a mature Douglas fir and Engelmann spruce (80+ years) single layered canopy stand to the south; a harvested Douglas fir stand with 8+ mature trees per acre and 100+ trees per acre of western larch and Douglas fir regeneration to the northwest; and an open southern facing grass/shrub stand to the north.

Unit 5 is bounded by a mature Douglas fir and Engelmann spruce (80+ years) multi-layered canopy stand to the east and northeast; a harvested Douglas fir, Engelmann spruce, and lodgepole pine stand containing 8+ mature trees per acre and 100+ (8+ years) trees per acre of western larch and Douglas fir regeneration to the southeast; a mature Douglas fir and Engelmann spruce (80+ years) multi-layered canopy stand to the south, west and northwest; and a harvested Douglas fir and Engelmann spruce stand with 8+ mature trees per acre and 100+ trees per acre of western larch and Douglas fir regeneration to the northeast.

2) Retention tree plan:

Leave trees will be randomly distributed throughout the interior of the units. Approximately 13-15 trees per acre are marked to be left as legacy and reserve trees in Units 1-4. Approximately 13-15 trees per acre are marked to be left as legacy and reserve trees in Unit 5 in addition to approximately 150 mature trees being clumped in the northeast portion of the unit. Unit Leave trees include green trees and dead snags. Snags will be left provided they can be safely operated around. Leave trees were selected from the largest size classes available with deformed or cull trees given higher preference.

c. *List threatened or endangered plant species known to be on or near the site.*

None found in database search

d. *Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:*

Stands will be planted with western larch to increase the predominance of this species within the harvest units and to assist with the re-establishment of conifer cover on the site. Grass seeding along roads, skid trails, and landings on disturbed soils will help to minimize the spread of noxious weeds on site.

5. Animal

a. *Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:*

birds: ☒*hawk,* ☐*heron,* ☒*eagle,* ☒*songbirds,* ☐*pigeon,* ☐*other:*
mammals: ☒*deer,* ☒*bear,* ☐*elk,* ☐*beaver,* ☐*other:*
fish: ☐*bass,* ☐*salmon,* ☐*trout,* ☐*herring,* ☐*shellfish,* ☐*other:*
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. *List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).*

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	44872	Lynx	Threatened	Threatened
1	44872	Grizzly bear	Threatened	Endangered
2	44873	Lynx	Threatened	Threatened
2	44873	Grizzly bear	Threatened	Endangered
3	44874	Lynx	Threatened	Threatened
3	44874	Grizzly bear	Threatened	Endangered
4	44875	Lynx	Threatened	Threatened
4	44875	Grizzly bear	Threatened	Endangered
5	44876	Lynx	Threatened	Threatened
5	44876	Grizzly bear	Threatened	Endangered

c. *Is the site part of a migration route? If so, explain.*
☒*Pacific flyway* ☒*Other migration route:* *Explain if any boxes checked:*

All areas in Northeast Washington are included within the Pacific flyway. No impacts are anticipated as a result of this proposal.

Mule deer and white tail deer may use the general area annually during migration periods. Due to the proposed activities, there may be an increased potential for the site to be used more frequently as part of the overall migration route. The regeneration of grasses, forbs, low shrubs, bushes, etc., is expected to create more habitat opportunities for deer and other herbivores.

d. *Proposed measures to preserve or enhance wildlife, if any:*

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

Species /Habitat: Grizzly bear *Protection Measures:*

Deferred timber adjacent to the proposed harvest boundaries provides structural diversity for continued movement, escapement and cover. Harvesting activities will provide forage that doesn't currently exist for many types of wildlife as opening up the forest canopy encourages herbaceous plant growth for foraging. Adequate numbers of WRTs and GRTs will be left to provide habitat for species utilizing snags and down woody debris. The 2971 road and road Spurs A and B will be closed after harvest completion and will prevent vehicle traffic from accessing part of the proposal site. There will be a decrease in open road density as a result of this proposal.

Species /Habitat: Lynx *Protection Measures:*

Deferred timber adjacent to proposed Units 1, 2, 3, 4 and 5 will provide lynx travel corridors retaining connectivity to denning and forage habitat throughout the landscape. Thorough delineation of proposed timber sale unit boundary locations ensured lynx denning habitat adjacent to Unit 5 remains intact. Timing limitations were written into the plan for activities within Units 3 and 5 extending the spring break-up limitation to accommodate potential lynx denning needs. The timing restrictions span from March 15 to July 31 within Units 3 and 5. All proposed unit boundary locations adhere to guidelines found in the Lynx Habitat Management Plan and the Loomis Landscape Plan which include limiting actual unit size (acreages) until adjacent previous harvests reach lynx forage habitat, and, ecotone requirements providing additional deferred transitional areas for wildlife movement, escapement and cover.

Species /Habitat: Goshawk *Protection Measures:*

In the spring of 2003 a field survey of the proposal area occurred. A determination to conduct an additional survey in the spring of 2004 was made and conducted (during nesting phase), no goshawks were found in the area during this survey. Large diameter trees have been left for potential nesting/roosting and other wildlife uses.

6. Energy and Natural Resources

a. *What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.*

Mostly diesel fuel for operating heavy equipment will be used to complete this project.

b. *Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.*

This project will not affect the potential use of solar energy.

c. *What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:*

No conservation or mitigation measures are necessary as part of this proposal.

7. Environmental Health

a. *Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.*

There are minimal hazards associated with operating and working around heavy equipment.

1) Describe special emergency services that might be required.

Washington State Department of Ecology will be notified if any spills occur and appropriate actions will be taken.

2) Proposed measures to reduce or control environmental health hazards, if any:

Care will be taken through active contract administration to insure that fuel or other hazards do not enter surface or ground water.

b. *Noise*

1) *What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?*

No noises exist in the area that would affect this proposal.

2) *What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.*

During road reconstruction, maintenance, and harvest activities, there will be some noise associated with heavy equipment, saws, and log truck operations primarily during daylight hours.

3) *Proposed measures to reduce or control noise impacts, if any:*

Noise levels are not anticipated to cause significant impact, therefore no mitigating measures have been planned.

8. Land and Shoreline Use

a. *What is the current use of the site and adjacent properties? (Site includes the complete proposal, e.g. rock pits and access roads.)*

The site is currently used for timber production, cattle grazing, and dispersed recreational activities, such as hunting, firewood cutting, and hiking.

b. *Has the site been used for agriculture? If so, describe.*

Yes, it is currently being used for cattle grazing.

c. *Describe any structures on the site.*

There are no structures on the site.

d. *Will any structures be demolished? If so, what?*

No structures will be demolished as part of this proposal.

e. *What is the current zoning classification of the site?*

No zoning in rural Okanogan County. It may be considered as general or open space.

f. *What is the current comprehensive plan designation of the site?*

Rural

g. *If applicable, what is the current shoreline master program designation of the site?*

The current shoreline master plan has no designation for this site.

h. *Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.*

No part of the site is known to be environmentally sensitive.

i. *Approximately how many people would reside or work in the completed project?*

No people will reside or work in the completed timber harvest area.

j. *Approximately how many people would the completed project displace?*

No people will be displaced.

k. *Proposed measures to avoid or reduce displacement impacts, if any:*

No measures are needed to reduce impacts.

l. *Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:*

The proposal will maintain or enhance the compatibility with existing and projected land uses.

9. Housing

a. *Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.*

No housing units will be provided.

b. *Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.*

There are currently no housing units on the site.

c. *Proposed measures to reduce or control housing impacts, if any:*

No measures are proposed.

10. Aesthetics

a. *What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?*

No structures are proposed

b. *What views in the immediate vicinity would be altered or obstructed?*

Views along the 2000 and 4000 roads will be altered as a result of the proposal.

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒*No* ☐*Yes, viewing location:*

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above?

This proposal will not affect any views from the areas described above.

c. *Proposed measures to reduce or control aesthetic impacts, if any:*

As per the Loomis Landscape Plan, a minimum of 13 trees per acre will remain after harvest, this combined with deferred areas between units will help to reduce the magnitude of visual impacts. Planting 300 western larch per acre and grass seeding landings, skid trails and roadways will all help reduce or control aesthetic impacts.

11. Light and Glare

a. *What type of light or glare will the proposal produce? What time of day would it mainly occur?*

Possibly glare from logging equipment or windshields during daylight hours.

b. *Could light or glare from the finished project be a safety hazard or interfere with views?*

The finished product will not produce light or glare.

c. *What existing off-site sources of light or glare may affect your proposal?*

No sources of light or glare would affect this proposal.

d. *Proposed measures to reduce or control light and glare impacts, if any:*

No measures are proposed.

12. Recreation

a. *What designated and informal recreational opportunities are in the immediate vicinity?*

Informal recreational opportunities in the area are hiking, hunting, camping, and other dispersed activities. North Fork Nine Mile, Cold Springs, Chopaka and Toats Coulee campgrounds and Fourteen Mile trailhead are designated recreational areas located off the 1000, 2400, 4000 and 4100 roads and should not be impacted by this proposal.

b. *Would the proposed project displace any existing recreational uses? If so, describe:*

No recreational uses should be displaced as a result of this project. Recreational activities may be disrupted during road construction, harvesting and hauling activities, but such disruptions should be temporary.

c. *Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:*

Harvest operations should not block the 1000, 4000, and 2000 roads that are used by recreational users. Logging operation-warning signs will be placed at the beginning of these roads to inform the public of hazards.

13. Historic and Cultural Preservation

a. *Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.*

None are known to be on or next to the site.

b. *Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.*

None are known

c. *Proposed measures to reduce or control impacts, if any:*
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

If an unknown historic or cultural resource is discovered during operations, the following process will occur:

1) Cease operations affecting the discovered site.
2) Physically identify the site on the ground so it can be located and impacts mitigated (a buffer if necessary).
3) Contact region state lands assistant and district manager, and work in collaboration on timing, confidentiality, and notification of tribes and other affected parties.

14. Transportation

a. *Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.*

The 4415, 4410, 4400, 4000, Toats Coulee county road (1000), Chopaka Grade (2000) 2970, 2971, Loomis/Oroville Highway (9425), Loomis/Tonasket Highway (9437), and US Highway 97 will serve the site, see sale area vicinity map.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?

Due to the relative remoteness of the sale area transportation impacts will be limited and only occur during relatively short periods of time. The impacts that will occur should be mitigated by the control measures written within the plan (14.g below).

b. *Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?*

The site is currently not served by public transit.

c. *How many parking spaces would the completed project have? How many would the project eliminate?*

No parking spaces will be created or eliminated as a result of this project.

d. *Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).*

Yes, see A.11 and the attached sale area map.

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

This proposal should have minimal impact on the current transportation system. Any impact at all will be temporary, and limited to the period of time during which operations are being conducted. Access to existing roads in the sale area may be restricted during operations, as needed for safety.

e. *Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.*

No water, rail or air transportation to be used.

f. *How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.*

This proposal should result in no increase in vehicle trips per day upon completion of timber sale. However, log hauling may involve from approximately five to ten loads per day during the course of operations. Also, see B.14.d.1., above.

g. Proposed measures to reduce or control transportation impacts, if any:

Dust abatement will occur on the 2000 and 4000 roads to mitigate dust created as a result of hauling activities. "Caution Log Trucks" signs and CB channel being used, will be placed at the 1000/4000 road junction on the 4000 road, and the 1000 (Toats)/2000 (Chopaka) road junction on the 2000 and 1000 roads during log haul to warn other users and residences of log truck traffic. Speeds of harvesting related traffic will be monitored by the contract administrator to assure safe operating speeds. See also B. 14.d.1., above.

15. Public Services

a. *Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.*

There is no increase in public service anticipated.

b. *Proposed measures to reduce or control direct impacts on public services, if any.*

No measures to reduce impacts are needed.

16. Utilities

a. *Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.*

No utilities are available at the site.

b. *Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.*

No utilities are proposed as part of this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: _____ Date: _____
Sam Steinshouer — Highlands District Forester 1

Reviewed by: _____ Date: _____
Loren Torgerson — Highlands District Manager

Reviewed by: _____ Date: _____
Bob McKellar — Management Forester

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